

Via Facsimile: (703) 872-9306

9D-HR-19236
PATENT

IN THE CLAIMS

1. - 15. (canceled)

16. (currently amended) A quick chill and thaw system for a refrigerator including a first compartment at a first temperature and a second compartment at a second temperature, said quick chill and thaw system comprising:

a pan;

an air handler comprising an air supply flow path, a fan positioned to move air through said air supply flow path from the first compartment and into said pan, a return flow path configured to return air from said pan to the first compartment, and a heater element positioned to warm air that passes through said air handler wherein at least one of said pan and said air handler comprises a light source for illuminating said pan; and

a duct member adapted for establishing flow communication between said air supply flow path and an air supply from the second compartment, wherein ~~said air supply~~ the second compartment comprises a freezer compartment.

17. (previously presented) A quick chill and thaw system in accordance with Claim 16 further comprising a re-circulation path for mixing air from said pan with air in said air supply flow path.

18. (original) A quick chill and thaw system in accordance with Claim 16 wherein said air handler is configured to deliver air into said pan from above and behind said pan.

19. - 20. (canceled)

21. (original) A quick chill and thaw system in accordance with Claim 16 wherein said pan comprises a sliding cover.

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22. (previously presented) A quick chill and thaw system in accordance with Claim 16 wherein said pan is configured for slide-out access.

23. (canceled)

24. (previously presented) A quick chill and thaw system in accordance with Claim 16 wherein said duct member comprises a supply duct and a return duct.

25. (canceled)

26. (currently amended) A quick chill and thaw system in accordance with Claim 16 further comprising an adapter for establishing flow communication between said air supply and said duct member, said adapter configured to apportion a percentage of ~~said the air~~ the air flow ~~communication~~ to said air handler supply airflow path.

27. (previously presented) A quick chill and thaw system in accordance with Claim 26 wherein said percentage is about 40%.

28. (previously presented) A quick chill and thaw system in accordance with Claim 16 further comprising a tray in said pan.

29. (original) A quick chill and thaw system in accordance with Claim 28 wherein said tray includes markers for placement of items on said tray.

30. (original) A quick chill and thaw system in accordance with Claim 16 further comprising a rack for positioning items within said pan.

31. (original) A quick chill and thaw system in accordance with Claim 30 wherein said rack comprises a chill side and a thaw side.

32. (original) A quick chill and thaw system in accordance with Claim 16 wherein said air handler is adapted for rapid chilling and refrigerated thawing of items placed in said pan.

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33. (previously presented) A quick chill and thaw system in accordance with Claim 32 wherein said air handler is operable in a chill mode, said air handler configured to move air at a temperature of about 21°F in said chill mode.

34. (previously presented) A quick chill and thaw system in accordance with Claim 32 wherein said air handler is operable in a thaw mode, said air handler configured to move air at a temperature and velocity that maintains a surface temperature of a thawed item in a refrigerated state.

35. (previously presented) A quick chill and thaw system in accordance with Claim 34 wherein said air temperature is between about 40°F to about 50°F.

36. (original) A quick chill and thaw system in accordance with Claim 35 wherein said air temperature is about 41°F.

37. (original) A quick chill and thaw system in accordance with Claim 34 wherein said air handler is operable in said thaw mode for a selected period of time.

38. – 52. (canceled)

53. (currently amended) A quick chill and thaw system ~~for~~ in a refrigerator including a fresh food compartment, said quick chill and thaw system comprising:

a pan positioned within the fresh food compartment, wherein the fresh food compartment is at a first temperature;

an air handler in flow communication with said pan, and

a heater element positioned such that air entering said pan is at a temperature greater than the first temperature.

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54. (previously presented) A quick chill and thaw system in accordance with Claim 53 wherein said air handler is configured for discharging air at a temperature and velocity to maintain a surface temperature of a thawed item in a refrigerated state.

55. (previously presented) A quick chill and thaw system in accordance with Claim 54 wherein said air temperature is between about 40°F to about 50°F.

56. (original) A quick chill and thaw system in accordance with Claim 55 wherein said air temperature is about 41°F.

57. (original) A quick chill and thaw system in accordance with Claim 54 wherein said surface temperature is about 41°F.

58. (original) A quick chill and thaw system in accordance within Claim 53 wherein said air handler further comprises an air supply flow path and a return flow path.

59. (previously presented) A quick chill and thaw system in accordance with Claim 58 further comprising a damper element in flow communication with said supply flow path and said return flow path.

60. (original) A quick chill and thaw system in accordance with Claim 58 further comprising a re-circulation flow path for mixing of air in said air supply flow path with air from said re-circulation path.

61. (original) A quick chill and thaw system in accordance with Claim 60 wherein said supply flow path is positioned between said return flow path and said re-circulation flow path.

62. (original) A quick chill and thaw system in accordance with Claim 53 wherein said heater element is a foil-type heater element.

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63. (original) A quick chill and thaw system in accordance with Claim 53 further comprising a plenum extension for distributing air within said pan.

64. (previously presented) A quick chill and thaw system for a refrigerator comprising:

a pan;

an air handler adapted for producing convective airflow within said pan; and

a rack inside said pan for positioning items placed therein, wherein said rack comprises a chill side and a thaw side.

65. (canceled)

66. (previously presented) A quick chill and thaw system in accordance with Claim 64 wherein each of said chill side and said thaw side comprises a plurality of longitudinal members configured to orient food and beverage items in said pan.

67. (original) A quick chill and thaw system in accordance with Claim 66 wherein said longitudinal members are straight.

68. (previously presented) A quick chill and thaw system in accordance with Claim 66 wherein said longitudinal members are at least partially curved.

69. (original) A quick chill in thaw system in accordance with Claim 66 wherein said rack includes first and second ends, said longitudinal members extending non-linearly between said first and second ends.

70. (original) A quick chill and thaw system in accordance with Claim 64 further comprising a tray within said pan, said rack removably positioned on said tray.

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71. (original) A quick chill and thaw system in accordance with Claim 70 wherein said tray is removable from said pan.

72. (original) A quick chill and thaw system in accordance with Claim 70 wherein said tray further comprises a handle.

73. (currently amended) A quick chill and thaw system in a refrigerator including a first compartment ~~and a quick chill and thaw system located in the first compartment~~, said quick chill and thaw system comprising:

a pan; and

an air handler comprising an airflow path comprising an air supply path and a return path, and a fan for drawing air through from said airflow path into said pan and from said pan into said airflow path, wherein at least one of said pan and said air handler comprises a light source for illuminating said pan.

74. (original) A quick chill and thaw system in accordance with Claim 73 further comprising a re-circulation path for mixing air from said pan with air in said air supply flow path.

75. (original) A quick chill and thaw system in accordance with Claim 73 wherein said air handler further comprises a heater element for warming air inside said air handler.

76. (canceled)

77. (original) A quick chill and thaw system in accordance with Claim 73 wherein said air handler is adapted for rapid chilling and refrigerated thawing of items placed in said pan.

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78. (original) A quick chill and thaw system in accordance with Claim 77 wherein said air handler is operable in a chill mode, said air handler moving air at a temperature of about 21°F in said chill mode.

79. (original) A quick chill and thaw system in accordance with Claim 77 wherein said air handler is operable in a thaw mode, said air handler moving air at a temperature and velocity that maintains a surface temperature of a thawed item within acceptable limits.

80. (original) A quick chill and thaw system for a refrigerator including a food storage compartment, said quick chill and thaw system comprising:

a pan; and

an air handler in flow communication with said pan, said air handler comprising a heater element and configured for maintaining a substantially constant temperature within said pan in a thawing operation.

81. (original) A quick chill and thaw system in accordance with Claim 80 wherein said air handler is configured for discharging air at a temperature and velocity to maintain a surface temperature of a thawed item within acceptable limits.

82. (original) A quick chill and thaw system in accordance with Claim 81 wherein said air temperature is about 40°F to about 50°F.

83. (original) A quick chill and thaw system in accordance within Claim 80 wherein said air handler further comprises an air supply flow path and a return flow path.

84. (original) A quick chill and thaw system in accordance with Claim 83 further comprising a damper element in flow communication with said supply flow path and said return flow path.

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85. (original) A quick chill and thaw system in accordance with Claim 83 further comprising a re-circulation flow path for mixing of air in said air supply flow path with air from said re-circulation path.

86. (original) A quick chill and thaw system for a refrigerator including a fresh food compartment, said quick chill and thaw system comprising:

a pan; and

an air handler in flow communication with said pan, said air handler comprising a flow path comprising a supply path and a return path, and a heater element located in said airflow path.

87. (original) A quick chill and thaw system in accordance with Claim 86 wherein said air handler is configured for discharging air at a temperature and velocity to maintain a surface temperature of a thawed item within acceptable limits.

88. (original) A quick chill and thaw system in accordance with Claim 87 wherein said air is about 40°F to about 50°F.

89. – 94. (canceled)

95. (previously presented) A quick chill and thaw system in accordance with Claim 16 wherein said heater is positioned within said air handler.

96. (previously presented) A quick chill and thaw system for a refrigerator including a fresh food compartment, said quick chill and thaw system comprising:

a pan positioned within the fresh food compartment, wherein the fresh food compartment is at a first temperature;

an evaporator in flow communication with said pan; and

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a heater element positioned such that air entering said pan is at a temperature greater than the first temperature.